

Notice of Allowability

Application No.

10/679,924

Examiner

Karl E. Group

Applicant(s)

YECKLEY, RUSSELL L.

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 4-26-05.
2. ☒ The allowed claim(s) is/are 51-75,58-83,85-90.
3. ☒ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|---|


KARL GROUP
PRIMARY EXAMINER
GROUP/755

EXAMINER'S AMENDMENT

1. An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on May 9, 2005, Stephen Belsheim, requested an extension of time for 1 MONTH(S) and authorized the Director to charge Deposit Account No. 02-2267 the required fee of \$570.00 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claim 61, line 15, delete "contains about one hundred weight percent alpha silicon nitride" and insert,

- - having an amount of beta silicon nitride equal to about zero - - - .

Claim 63, change "comprising" to - - - consisting of - - - .

Claim 67, delete "contains about one hundred weight percent alpha silicon nitride" and insert,

- - has an amount of beta silicon nitride equal to about zero - - - .

Claim 73, last line, change "nitride powder" to:

- - - nitride powder; and

the SIALON ceramic body having a Vickers hardness (18.5 Kg load) equal to or greater than about 16.5 Gpa, and a fracture toughness (K_{IC}) equal to or greater than about $5.5 \text{ Mpa}\sqrt{\text{m}}$ - - -.

Claim 74, line 13-15 delete "and the starting silicon nitride powder contains about one hundred weight percent alpha silicon nitride" and insert

- - the silicon nitride starting powder having an amount of beta silicon nitride equal to about zero; and

the SIALON ceramic body having a Vickers hardness (18.5 Kg load) equal to or greater than about 16.5 Gpa, and a fracture toughness (K_{IC}) equal to or greater than about $5.5 \text{ Mpa}\sqrt{\text{m}}$ - - -.

Claim 83, change "comprising" to - - - consisting of - - -.

Claim 85, delete "contains about one hundred weight percent alpha silicon nitride" and insert,

- - has an amount of beta silicon nitride equal to about zero - - -.

Claim 86, change "comprising" to - - - consisting of - - -.

2. The Declaration under 37 CFR 1.132 filed 4-26-05 and 9-17-04 is sufficient to overcome the rejection of claims based upon the prior art of record.


The declaration filed 4-26-05 show the relationship of the content of beta silicon nitride in the starting silicon nitride powder and the affect on the phases present in the final sintered body as well as the properties. The declaration filed 9-17-04 show the affect on hardness and toughness when the beta silicon nitride in the starting materials is limited to amounts of the claimed invention.

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl E. Group whose telephone number is 571-272-1368. The examiner can normally be reached on M-F (6:30-4:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karl E Group
Primary Examiner
Art Unit 1755

Keg
5-9-05